

ABSTRACT OF THE DISCLOSURE

In the hydrogen supply device for producing and supplying hydrogen to a fuel cell, a heat exchange section has a rotary thermal storage through which low and high temperature passages pass. Reforming material is supplied to the low temperature fluid passage on an upstream side of the heat exchange section. A reforming section for producing reformed gas containing hydrogen is located at a downstream side of the low temperature fluid passage. A combustion gas supply section for generating and supplying a combustion gas is located in the high temperature fluid passage. The rotary thermal storage rotates to move alternately between the low and high temperature fluid passages so that heat of the combustion gas flowing in the high temperature fluid conduit is transferred to reforming material flowing in the low temperature fluid conduit. The low temperature fluid passage communicates with the high temperature fluid passage via the fuel cell.